



SEQUENCE LISTING

<110> Reubi, Jean-Claude

<120> Use of Labelled CCK-B Receptor Ligands for the  
Detection and Localization of Malignant Human Tumours

<130> 1668-303

<140> 09/125,823

<141> 1999-01-19

<150> EPO 96200498.2

<151> 1996-02-27

<150> PCT/US97/03056

<151> 1997-02-25

<160> 27

<170> PatentIn Ver. 2.0

<210> 1

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> MOD\_RES

<222> (1) .. (7)

<223> The peptide is labelled with a radionuclide or  
with a paramagnetic metal isotope.

<220>

<221> MOD\_RES

<222> (7)

<223> Xaa is Phe-NH<sub>2</sub>.

<220>

<223> Description of Artificial Sequence:Cholecystokin  
analog.

<400> 1

Tyr Met Gly Trp Met Asp Xaa

1

5

<210> 2

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<221> MOD\_RES

<222> (1) .. (8)

<223> The peptide is labelled with a radionuclide or  
with a paramagnetic metal isotope.

<220>  
<221> MOD\_RES  
<222> (8)  
<223> Xaa is Phe-NH<sub>2</sub>.

<220>  
<223> Description of Artificial Sequence:Cholecystokinin  
analog.

<400> 2  
Asp Tyr Met Gly Trp Met Asp Xaa  
1 5

<210> 3  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> MOD\_RES  
<222> (1) . . (8)  
<223> The peptide is labelled with a radionuclide or  
with a paramagnetic metal isotope.

<220>  
<221> MOD\_RES  
<222> (3)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (6)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (8)  
<223> Xaa is Phe-NH<sub>2</sub>.

<220>  
<223> Description of Artificial Sequence:Cholecystokinin  
analog.

<400> 3  
Asp Tyr Xaa Gly Trp Xaa Asp Xaa  
1 5

<210> 4  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> MOD\_RES  
<222> (1) . . (8)  
<223> The peptide is labelled with a radionuclide or  
with a paramagnetic metal isotope.  
<220>

<221> MOD\_RES  
<222> (1)  
<223> Xaa is DAsp.

<220>  
<221> MOD\_RES  
<222> (3)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (6)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (8)  
<223> Xaa is Phe-NH2.

<220>  
<223> Description of Artificial Sequence:Cholecystokinin  
analog.

<400> 4  
Xaa Tyr Xaa Gly Trp Xaa Asp Xaa  
1 5

<210> 5  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> MOD\_RES  
<222> (1) . . (8)  
<223> The peptide is labelled with a radionuclide or  
with a paramagnetic metal isotope.

<220>  
<221> MOD\_RES  
<222> (1)  
<223> Xaa is DAsp.

<220>  
<221> MOD\_RES  
<222> (8)  
<223> Xaa is Phe-NH2.

<220>  
<223> Description of Artificial Sequence:Cholecystokinin  
analog.

<400> 5  
Xaa Tyr Met Gly Trp Met Asp Xaa  
1 5

<210> 6  
<211> 8

<212> PRT  
<213> Artificial Sequence

<220>  
<221> MOD\_RES  
<222> (1) .. (8)  
<223> The peptide is labelled with a radionuclide or  
with a paramagnetic metal isotope.

<220>  
<221> MOD\_RES  
<222> (1)  
<223> Dpr

<220>  
<221> MOD\_RES  
<222> (3)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (6)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (8)  
<223> Xaa is Phe-NH<sub>2</sub>.

<220>  
<223> Description of Artificial Sequence:Cholecystokinin  
analog.

<400> 6  
Xaa Tyr Xaa Gly Trp Xaa Asp Xaa  
1 5

<210> 7  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> MOD\_RES  
<222> (1) .. (8)  
<223> The peptide is labelled with a radionuclide or  
with a paramagnetic metal isotope.

<220>  
<221> MOD\_RES  
<222> (6)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (8)

<223> Xaa is Phe-NH<sub>2</sub>.

<220>

<223> Description of Artificial Sequence:Cholecystokinin analog.

<400> 7

Asp Tyr Thr Gly Trp Xaa Asp Xaa  
1 5

<210> 8

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> MOD\_RES

<222> (1) .. (9)

<223> The peptide is labelled with a radionuclide or with a paramagnetic metal isotope.

<220>

<221> MOD\_RES

<222> (4)

<223> Nle

<220>

<221> MOD\_RES

<222> (7)

<223> Nle

<220>

<221> MOD\_RES

<222> (9)

<223> Xaa is Phe-NH<sub>2</sub>.

<220>

<223> Description of Artificial Sequence:Cholecystokinin analog.

<400> 8

Arg Asp Tyr Xaa Gly Trp Xaa Asp Xaa  
1 5

<210> 9

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> MOD\_RES

<222> (1) .. (9)

<223> The peptide is labelled with a radionuclide or with a paramagnetic metal isotope.

<220>

<221> MOD\_RES

<222> (7)

<223> Nle

<220>  
<221> MOD\_RES  
<222> (9)  
<223> Xaa is Phe-NH2.

<220>  
<223> Description of Artificial Sequence:Cholecystokinin  
analog.

<400> 9  
Arg Asp Tyr Thr Gly Trp Xaa Asp Xaa  
1 5

<210> 10  
<211> 10  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> MOD\_RES  
<222> (1) . . (10)  
<223> The peptide is labelled with a radionuclide or  
with a paramagnetic metal isotope.

<220>  
<221> MOD\_RES  
<222> (5)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (8)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (10)  
<223> Xaa is Phe-NH2.

<220>  
<223> Description of Artificial Sequence:Cholecystokinin  
analog.

<400> 10  
Tyr Gly Asp Tyr Xaa Gly Trp Xaa Asp Xaa  
1 5 10

<210> 11  
<211> 10  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> MOD\_RES  
<222> (1) .. (10)  
<223> The peptide is labelled with a radionuclide or  
with a paramagnetic metal isotope.

<220>  
<221> MOD\_RES  
<222> (1)  
<223> Xaa is DTyr.

<220>  
<221> MOD\_RES  
<222> (5)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (8)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (10)  
<223> Xaa is Phe-NH<sub>2</sub>.

<220>  
<223> Description of Artificial Sequence:Cholecystokinin  
analog.

<400> 11  
Xaa Gly Asp Tyr Xaa Gly Trp Xaa Asp Xaa  
1 5 10

<210> 12  
<211> 10  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> MOD\_RES  
<222> (1)  
<223> Xaa is DTyr.

<220>  
<221> MOD\_RES  
<222> (5)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (8)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (10)  
<223> Xaa is Phe-NH2.

<220>  
<223> Description of Artificial Sequence:Cholecystokinin  
analog.

<400> 12  
Xaa Gly Asp Tyr Xaa Gly Trp Xaa Asp Xaa  
1 5 10

<210> 13  
<211> 10  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> MOD\_RES  
<222> (1)  
<223> Xaa is 125I iodinated DTyr.

<220>  
<221> MOD\_RES  
<222> (5)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (8)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (10)  
<223> Xaa is Phe-NH2.

<220>  
<223> Description of Artificial Sequence:Cholecystokinin  
analog.

<400> 13  
Xaa Gly Asp Tyr Xaa Gly Trp Xaa Asp Xaa  
1 5 10

<210> 14  
<211> 10  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> MOD\_RES  
<222> (1)  
<223> Xaa is DTyr.

<220>  
<221> MOD\_RES  
<222> (4)  
<223> Xaa is 125I iodinated Tyr.

<220>  
<221> MOD\_RES  
<222> (5)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (8)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (10)  
<223> Xaa is Phe-NH<sub>2</sub>.

<220>  
<223> Description of Artificial Sequence:Cholecystokin  
analog.

<400> 14  
Xaa Gly Asp Xaa Xaa Gly Trp Xaa Asp Xaa  
1 5 10

<210> 15  
<211> 10  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> MOD\_RES  
<222> (1)  
<223> Xaa is 125I iodinated DTyr.

<220>  
<221> MOD\_RES  
<222> (4)  
<223> Xaa is Tyr(SO<sub>3</sub>H).

<220>  
<221> MOD\_RES  
<222> (5)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (8)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (10)  
<223> Xaa is Phe-NH<sub>2</sub>.

<220>  
<223> Description of Artificial Sequence:Cholecystokinin analog.

<400> 15  
Xaa Gly Asp Xaa Xaa Gly Trp Xaa Asp Xaa  
1 5 10

<210> 16  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> MOD\_RES  
<222> (2)  
<223> Xaa is Tyr(SO3H).

<220>  
<221> MOD\_RES  
<222> (8)  
<223> Xaa is Phe-NH2.

<220>  
<223> Description of Artificial Sequence:Cholecystokinin analog.

<400> 16  
Asp Xaa Met Gly Trp Met Asp Xaa  
1 5

<210> 17  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> MOD\_RES  
<222> (8)  
<223> Xaa is Phe-NH2.

<220>  
<223> Description of Artificial Sequence:Cholecystokinin analog.

<400> 17  
Asp Tyr Met Gly Trp Met Asp Xaa  
1 5

<210> 18  
<211> 10  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> MOD\_RES  
<222> (1)  
<223> Xaa is DTyr.

<220>  
<221> MOD\_RES  
<222> (4)  
<223> Xaa is Tyr(SO3H).

<220>  
<221> MOD\_RES  
<222> (5)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (8)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (10)  
<223> Xaa is Phe-NH2.

<220>  
<223> Description of Artificial Sequence:Cholecystokinin  
analog.

<400> 18  
Xaa Gly Asp Xaa Xaa Gly Trp Xaa Asp Xaa  
1 5 10

<210> 19  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> MOD\_RES  
<222> (1)  
<223> Xaa is DTPA substituted Asp.

<220>  
<221> MOD\_RES  
<222> (8)  
<223> Xaa is Phe-NH2.

<220>  
<223> Description of Artificial Sequence:Cholecystokinin  
analog.

<400> 19  
Xaa Tyr Met Gly Trp Met Asp Xaa  
1 5

<210> 20  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> MOD\_RES  
<222> (1)  
<223> Xaa is DTPA substituted Asp.

<220>  
<221> MOD\_RES  
<222> (3)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (6)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (8)  
<223> Xaa is Phe-NH<sub>2</sub>.

<220>  
<223> Description of Artificial Sequence:Cholecystokinin  
analog.

<400> 20  
Xaa Tyr Xaa Gly Trp Xaa Asp Xaa  
1 5

<210> 21  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> MOD\_RES  
<222> (1)  
<223> Xaa is DTPA substituted DAsp.

<220>  
<221> MOD\_RES  
<222> (3)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (6)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (8)  
<223> Xaa is Phe-NH<sub>2</sub>.

<220>  
<223> Description of Artificial Sequence:Cholecystokinin  
analog.

<400> 21  
Xaa Tyr Xaa Gly Trp Xaa Asp Xaa  
1 5

<210> 22  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> MOD\_RES  
<222> (1)  
<223> Xaa is DTPA substituted DAsp.

<220>  
<221> MOD\_RES  
<222> (8)  
<223> Xaa is Phe-NH<sub>2</sub>.

<220>  
<223> Description of Artificial Sequence:Cholecystokinin  
analog.

<400> 22  
Xaa Tyr Met Gly Trp Met Asp Xaa  
1 5

<210> 23  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> MOD\_RES  
<222> (1)  
<223> Xaa is beta-DTPA substituted Dpr.

<220>  
<221> MOD\_RES  
<222> (3)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (6)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (8)  
<223> Xaa is Phe-NH<sub>2</sub>.

<220>  
<223> Description of Artificial Sequence:Cholecystokinin  
analog.

<400> 23  
Xaa Tyr Xaa Gly Trp Xaa Asp Xaa  
1 5

<210> 24  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> MOD\_RES  
<222> (1)  
<223> Xaa is DTPA substituted Asp.

<220>  
<221> MOD\_RES  
<222> (6)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (8)  
<223> Xaa is Phe-NH<sub>2</sub>.

<220>  
<223> Description of Artificial Sequence:Cholecystokinin  
analog.

<400> 24  
Xaa Tyr Thr Gly Trp Xaa Asp Xaa  
1 5

<210> 25  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> MOD\_RES  
<222> (1)  
<223> Xaa is <sup>115</sup>Indium-DTPA substituted Asp.

<220>  
<221> MOD\_RES  
<222> (3)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (6)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (8)  
<223> Xaa is Phe-NH2.

<220>  
<223> Description of Artificial Sequence:Cholecystokinin  
analog.

<400> 25  
Xaa Tyr Xaa Gly Trp Xaa Asp Xaa  
1 5

<210> 26  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> MOD\_RES  
<222> (1)  
<223> Xaa is 115Indium-DTPA substituted DAsp.

<220>  
<221> MOD\_RES  
<222> (3)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (6)  
<223> Nle

<220>  
<221> MOD\_RES  
<222> (8)  
<223> Xaa is Phe-NH2.

<220>  
<223> Description of Artificial Sequence:Cholecystokinin  
analog.

<400> 26  
Xaa Tyr Xaa Gly Trp Xaa Asp Xaa  
1 5

<210> 27  
<211> 33  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> SITE  
<222> (1) .. (25)  
<223> The first 25 Xaa's may or may not be present; can be equal or different; are selected from Ala, Leu, Asn, Dpr, Gln, Glu, Ser, Ile, Met, His, Asp, Lys, Gly, Thr, Pro, Pyr, Arg, Tyr, Trp, Val and Phe.

<220>  
<221> SITE  
<222> (26)  
<223> Xaa is Asp, Dpr, Glu or Pyr, with the proviso that Xaa can only be Pyr when residues 1-25 are not present.

<220>  
<221> SITE  
<222> (28)  
<223> Xaa is Met, Leu or Nle.

<220>  
<221> SITE  
<222> (31)  
<223> Xaa is Met, Leu or Nle.

<220>  
<221> SITE  
<222> (33)  
<223> Xaa is Phe terminating in a hydroxy group, an acetoxy group or an amino group.

<220>  
<223> Description of Artificial Sequence:Cholecystokin  
analog.

<400> 27  
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
1 5 10 15

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Tyr Xaa Gly Trp Xaa Asp  
20 25 30

Xaa